

CURRICULUM VITAE
Jeffrey D. Boehm, Jr.

USDA-ARS
Wheat, Sorghum and Forage Research Unit
251 Filley Hall
University of Nebraska-Lincoln East Campus
Lincoln, NE 68583-0937

2961 Valley Stream Dr
Lincoln, NE 68516
(843) 469-7914
Jeffrey.Boehm@USDA.gov
www.linkedin.com/in/jeffrey-boehm-jr
[Jeffrey D. Boehm Jr \(researchgate.net\)](http://Jeffrey D. Boehm Jr (researchgate.net))

CURRENT POSITION

Research Geneticist

May 2020-Present

USDA-ARS
Wheat, Sorghum and Forage Research Unit
251 Filley Hall (office); 245 Filley Hall (laboratory)
University of Nebraska-Lincoln East Campus
Lincoln, NE 68583-0937

USDA-ARS Regional Coordinator, Hard Winter Wheat Regional Performance Nurseries
USDA-ARS National Coordinator, Africa Winter Wheat and Barley Stem Rust Nursery

EDUCATION & PROFESSIONAL EXPERIENCE

FEB. 2019-FEB. 2020	University of Georgia Postdoctoral Research Associate Institute of Plant Breeding, Genetics & Genomics Center for Applied Genetic Technologies, Athens, GA Soybean Breeding & Molecular Genetics
AUG. 2018-FEB. 2019	Phytelligence, Inc. Associate Commercial Breeder Research & Development Division, Pullman, WA Tree Fruit & Rootstock Breeding
MAY 2017-AUG. 2018	University of Georgia Postdoctoral Research Associate Institute of Plant Breeding, Genetics & Genomics Center for Applied Genetic Technologies, Athens, GA Soybean Breeding & Molecular Genetics
JUNE 2014-MAY 2017	USDA-ARS Graduate Research Assistant (Joint Appointment) Western Wheat Quality Laboratory (WWQL), Pullman, WA Hard & Soft Wheat End-Use Quality
AUG. 2014-MAY 2017	Washington State University

Department of Crop & Soil Sciences, Pullman, WA
Graduate Research Assistant (Joint Appointment)
Wheat Breeding & Molecular Genetics

AUG. 2012-MAY 2014 The University of Tennessee
Graduate Research Assistant
Department of Plant Sciences, Knoxville, TN
Soybean Breeding & Genetics

MAR. 2012-AUG. 2012 The University of Tennessee
Undergraduate Research Assistant
Department of Plant Sciences, Knoxville, TN
Soybean Breeding & Genetics

SELECTED PEER REVIEWED PUBLICATIONS

- 2025 **Boehm Jr, JD**, Masterson, S., Palmer, N., Cai, X., & Miguez, F. Yield trends for genetic improvement of winter wheat (*Triticum aestivum* L.) grain yield in the southern Great Plains of North America, 1959–2024. *Crop Science* In production
- 2025 Sharma R, Wang M, Chen X, Lakkakula IP, Amand PS, Bernardo A, Bai G, Bowden RL, Carver BF, **Boehm JD Jr**, Aoun M. Genome-wide association mapping for the identification of stripe rust resistance loci in US hard winter wheat. *Theor Appl Genet*. doi: 10.1007/s00122-025-04858-3.
- 2025 Lakkakula IP, Kolmer JA, Sharma R, St Amand P, Bernardo A, Bai G, Ibrahim A, Bowden RL, Carver BF, **Boehm JD Jr**, Aoun M. Identification of leaf rust resistance loci in hard winter wheat using genome-wide association mapping. *Plant Genome*. doi: 10.1002/tpg2.20546.
- 2025 Pedley, KF, **Boehm Jr, JD**, et al. Evaluation of Wheat Blast Resistance in the USDA Hard Winter Wheat (*Triticum aestivum*) Northern and Southern Regional Performance Nurseries. *Plant Disease*, Vol. 109, No. 6.
<https://doi.org/10.1094/PDIS-09-24-1941-RE>
- 2024 **Boehm Jr, JD**, Cai, X. Enrichment and Diversification of the Wheat Genome via Alien Introgression. *Plants* **2024**, *13*, 339. <https://doi.org/10.3390/plants13030339>
- 2024 Registration of WGC002 spring wheat containing wild grass-derived Fusarium head blight resistance gene Fhb7^{The2}. *Journal of Plant Registrations* 18:179-186.
<https://doi.org/10.1002/plr2.20342>
- 2023 **Boehm Jr, JD**, Masterson, S., Palmer, N., Cai, X., & Miguez, F. Genetic improvement of winter wheat (*Triticum aestivum* L.) grain yield in the Northern Great Plains of North America, 1959–2021. *Crop Science*, 63:3236–3249.
<https://doi.org/10.1002/CSC2.21065>

- 2022 Baenziger PS, Frels KA, **Boehm Jr JD**, et al. Registration of ‘Epoch’ Hard Red Winter Wheat. *Journal of Plant Registrations* 16:613-621.
<https://doi.org/10.1002/plr2.20247>
- 2022 Zhu X, **Boehm Jr JD**, Zhong S, Cai X. Genomic compatibility and inheritance of hexaploid-derived Fusarium head blight resistance genes in durum wheat. *The Plant Genome* 2022;e20183. <https://doi.org/10.1002/tpg2.20183>
- 2022 Venegas J, Guttieri MJ, **Boehm Jr JD**, Graybosch RA, Bai G, St. Amand P, Palmer N, Hussain W, Blecha S, Baenziger PS Genetic Architecture of the High Inorganic Phosphate Phenotype Derived from a Low Phytate Mutant in Winter Wheat (*Triticum aestivum* L.) *Crop Science* 2022; 1–14.
<https://doi.org/10.1002/csc2.20738>
- 2021 Kiszonas AM, Ibba MI, **Boehm Jr JD**, Morris CF. Effects of the functional *Gpc-B1* allele on soft durum wheat grain, milling, flour, dough and breadmaking quality. *Cereal Chemistry* 98:1250–1258. <https://doi.org/10.1002/cche.10477>
- 2021 Kiszonas AM, Ibba MI, **Boehm Jr JD**, Morris CF Effects of Glu-D1 gene introgressions on soft white spring durum wheat (*Triticum turgidum* subsp. *durum*) quality. *Cereal Chemistry* 00:1-11. <https://doi.org/10.1002/cche.10459>
- 2021 Alam M, Kashif M, Easterly AC, Wang F, **Boehm Jr. JD**, Baenziger PS. Coleoptile length comparison of three winter small grain cereals adapted to the Great Plains. *Cereal Research Communications* Published online 20 May 2021
<https://doi.org/10.1007/s42976-021-00151-3>
- 2021 Motta-Romero H, Ferdinand N, **Boehm Jr. JD**, Rose DJ. Effects of Foliar Fungicide on Yield, Micronutrients, and Cadmium in Grains from Historical and Modern Hard Winter Wheat Genotypes. *PLoS ONE* 16(3): e0247809.
<https://doi.org/10.1371/journal.pone.0247809>
- 2019 Morris CF, Kiszonas AM, Murray J, **Boehm Jr JD**, Ibba MI, Zhang M, Cai X. RE-evolution of durum wheat by introducing the Hardness and Glu-D1 loci. *Frontiers in Sustainable Food Systems* (9/15/19) [doi:10.3389/fsufs.2019.00103](https://doi.org/10.3389/fsufs.2019.00103)
- 2019 **Boehm Jr JD**, Abdel-Haleem H, Schapaugh Jr. WT, Rainey K, Pantalone VR, Shannon G, Klein J, Carter Jr. TE, Cardinal AJ, Shipe ER, Gillen AM, Smith JR, Chen P, Weaver DB, Boerma HR, Li Z. Genetic Improvement of U.S. Soybean in Maturity Groups V, VI, and VII. *Crop Science* 59:1838-1852
[doi:10.2135/cropsci2018.10.0627](https://doi.org/10.2135/cropsci2018.10.0627)
- 2019 Tran DT, Steketee CJ, **Boehm Jr JD**, Noe J, Li Z. Genome-wide Association Analysis Pinpoints Additional Major Genomic Regions Conferring Resistance to

- Soybean Cyst Nematode (*Heterodera glycines* Ichinohe) *Frontiers in Plant Science* 10:1-13 doi.org/10.3389/fpls.2019.00401
- 2019 Kumar N, Orenday-Ortiz J, Kiszonas A, **Boehm Jr JD**, Morris CF. Genetic analysis of a unique ‘super soft’ kernel texture phenotype in soft white spring wheat. *Journal of Cereal Science* 85:162-167 doi.org/10.1016/j.jcs.2018.12.003
- 2018 **Boehm Jr JD**, Nguyen V, Tashiro RM, Anderson D, Shi C, Wu X, Woodrow L, Yu K, Cui Y, Li Z. Genetic mapping and validation of the loci controlling the 7S α' and 11S A-type storage protein subunits in soybean [*Glycine Max* (L.) Merr.]. *Theoretical and Applied Genetics* 131:659-671 doi.org/10.1007/s00122-017-3027-9
- 2018 **Boehm Jr JD**, Ibba MI, Kiszonas AM, See DR, Skinner DZ, Morris CF. Genetic analysis of kernel texture (grain hardness) in a hard red spring wheat (*Triticum aestivum* L.) bi-parental population. *Journal of Cereal Science* 79:57-65 doi.org/10.1016/j.jcs.2017.09.015
- 2017 **Boehm Jr JD**, Zhang M, Cai X, Morris CF. Molecular and Cytogenetic Characterization of the 5DS-5BS Chromosome Translocation Conditioning Soft Kernel Texture in Durum Wheat. *Plant Genome* 10:1-11 [doi: 10.3835/plantgenome2017.04.0031](https://doi.org/10.3835/plantgenome2017.04.0031)
- 2017 **Boehm Jr JD**, Ibba MI, Kiszonas AM, See D, Skinner D, Morris CF. Identification of genotyping-by-sequencing sequence tags associated with milling performance and end-use quality traits in hard red spring wheat (*Triticum aestivum* L.). *Journal of Cereal Science* 77:73-83 doi.org/10.1016/j.jcs.2017.07.007
- 2017 **Boehm Jr JD**, Ibba MI, Kiszonas AM, Morris CF. End-Use Quality of CIMMYT-Derived Soft Kernel Durum Wheat Germplasm. I. Grain, Milling and Soft Wheat Quality. *Crop Science* 57:1475-1484 [doi: 10.2135/cropsci2016.09.0774](https://doi.org/10.2135/cropsci2016.09.0774)
- 2017 **Boehm Jr JD**, Ibba MI, Kiszonas AM, Morris CF. End-Use Quality of CIMMYT-Derived Soft Kernel Durum Wheat Germplasm. II. Dough Strength and Pan Bread Quality. *Crop Science* 57:1485-1494 [doi:10.2135/cropsci2016.09.0775](https://doi.org/10.2135/cropsci2016.09.0775)
- 2017 **Boehm Jr JD**, Walker FR, Bhandari HS, Kopsell D, Pantalone VR. Seed Inorganic Phosphorus Stability and Agronomic Performance of Two Low Phytate Soybean Lines Evaluated Across Six Southern U.S. Environments. *Crop Science* 57:2555-2563 [doi:10.2135/cropsci2017.02.0107](https://doi.org/10.2135/cropsci2017.02.0107)